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A Beginner's Guide to the Gawsworth 10 Mile Time Trial Season.

In July 2003 I made my first attempts at the Gawsworth time trials and recorded some of my experiences in a Fools Nook article (Jun 04 subtitled "Enter the Lemon"- after my family so dubbed my new Lemond bike).

By asking a lot of dumb questions and being graced with generous help from club members, I gradually improved my times, and by a quirk of the handicapping system actually won the handicap contest – by the skin of my teeth. So I thought it might be a good idea to summarise the lessons I learned in an article for the Fools Nook – as a way of making the club's own expertise available to other time trial newcomers like myself.

Competition:

1. Over the 15-week series of trials on Wednesday nights, you can compete at any level, either against your own personal best time, or against other riders at your level.
2. Rides cost 50p, and start at 7pm, but aim to get there about 6.30 to sign-in and warm up.
3. The best riders contest the "Scratch" competition, and the rest of us contest the "Handicap" event.
4. The handicap system deducts 20 minutes from your previous best time to give you a handicap allowance. So if your PB is 28 mins your handicap allowance will be 28 - 20 = 8 mins. If you then do a 27 mins time, the allowance is deducted from your latest time to give a net handicap time –i.e. 27 - 8 = 19mins.
5. Riders are then sorted by handicapped time and awarded points according to placing. So your points are affected not just by your own efforts but also by the performance of other riders (and who turns up).
6. Only twelve of the events count, so you can miss a few weeks without spoiling your chances.
7. Throughout a season the average rider reduces his time by about 1½ minutes; more for the beginners, less for the more experienced. I started at 31½minutes halfway through the 2003 series, and ended 2004 at just inside 26minutes.
8. Aerodynamic drag is by far the single biggest thing slowing you down – at 20mph about 80% of your effort is going into overcoming aerodynamic drag rather than any frictional losses in the wheels and gears.
9. Windy days are slower. A strong head wind in one direction is not fully compensated for by a tail wind on the return leg. Drag is proportional to the *square* of your speed relative to the air. So cycling at 20mph into a 10mph head wind costs you $(20+10)^2$ =900 units of drag, while the return costs only $(20-10)^2$ = 100units →1000 units in total. But on a still day, you would incur $(20+0)^2$ =400 each way →800 units, or 20% less.
10. You can of course, supplement you athletic prowess by improving your kit, effectively buying yourself a faster time. Aero handlebars will save you about ½ a minute, and an aero front wheel and helmet will each give you a bit less than that. On a fairly flat course, the laws of physics say that weight-saving is not really what it is all about, but you will find many willing to debate this with you.
11. If you don't want to buy aero kit, then credit yourself with an extra 1-2 minutes when comparing your times with more expensively equipped riders. Pump up your tyres to at least 100psi, remove mudguards etc, keep your elbows and knees in, and keep your head up for the best airflow over your ordinary helmet – and to best avoid potholes!
12. Obviously you should use cleats or toe straps as they allow you to pull up as well as press down on the pedals.
13. Cars are frequently forced to slow for us on what is quite a fast road, so I think it is worth using my flashing LED tail light. It shows up surprisingly well, even on summer's evenings when I ride in and out of the shade of the trees. It says "bike!" better than brightly coloured clothing, and if it encourages motorists to start thinking sooner about how and when they will overtake me, it is worth its weight.

Technique:

14. Warm up for 10 to 20 minutes. You should arrive at the start feeling hot, a little out of breath, and with a pulse rate about 75% of your maximum (max =220 minus your age).
15. Riders are started at one-minute intervals in number order, so you can work out when you should arrive at the start. Don't cut it too fine because the Starters worry. If you miss your slot it makes the timekeeper's job more complicated – and these volunteers deserve our consideration.

16. At least be there to watch the rider in front of you set off, and if you have a timer, start it then - and knock a minute off the display. It will leave your hands free to concentrate on your start. Set your bike computer to show average speed, and as you approach the end of the course it will tell you how you are doing. A 30 minute time needs 20mph etc. I find that my fast outbound speed gradually ebbs away on the return to Gawsworth.
17. If you go too hard at the beginning your calves will fill with lactic acid. Experienced riders build up their power slowly, not reaching full power until Gawsworth crossroads.
18. If you have a heart rate monitor, you should try and keep your pulse steady at 85 – 90% of your maximum.
19. Most beginners run in too high a gear. If in doubt, change down. Look ahead and change down early for hills, keeping your cadence up to 80-100 revs per minute. If you don't have cadence indication, you can work out your cadence at 80rpm in each of your gears, and change down if you fall below those speeds.
20. The contraction and relaxation of your leg muscles helps pump the blood around, so I guess faster pedalling at lighter load gets more oxygen into your muscles? It seems to work for Lance Armstrong.
21. Half way through the course, I find myself well into my rhythm and start daydreaming. I have to refocus on maintaining a fairly constant level of pain in my legs.
22. If you catch a slower rider you are not allowed to slipstream, but must cleanly overtake, and they are obliged to fall back.
23. At the finish you should shout your number as an aid to the timekeepers – if you have enough breath left!
24. **Training** takes all sorts of forms, but "interval training" is the current thing. After about 20 minutes warm up the idea is to go flat out for between 90 secs and 3 minutes according to taste, and then ease off for about twice that long before repeating half a dozen times.
25. There are long articles devoted to this subject on the internet:- http://www.pponline.co.uk/encyc/1030.htm or http://www.abcc.co.uk/tenpace1.html or http://www.abcc.co.uk/ . But put crudely, you should at least inject a few short sprints into your longer recreational rides if you want to get fitter.
26. Finally, pushing down on the pedals comes naturally, but in training do a few miles pulling up instead.